REMARKS

Claims 1 – 19 are currently pending in the application. Applicants amend claims 1 – 3, 5, 6, 8, 9, 11, 13 and 17. No new matter is introduced. Support for the amendments may be found, for example, at page 6, line 29, to page 7, line 7 and page 27, line 29, to page 29, line 25 of Applicants' specification.

OBJECTED CLAIMS

Claims 1 – 9 and 17 – 19 are objected to with regard to informalities. Specifically, the Examiner suggests that use of the term "can" in these claims requires correction. Applicants amend claims 1 – 3, 5, 6, 8, 9 and 17 to eliminate this term. Accordingly, Applicants respectfully request that this objection be withdrawn.

REJECTION UNDER 35 U.S.C. §§ 102, 103

Claims 1 and 5-10 are rejected under 35 U.S.C. §102(a) as being anticipated by Kennedy et al., U.S. Patent No. 5,857,011 (Kennedy I). Claims 11-16 are rejected under 35 U.S.C. §102(e) as being anticipated by Ta et al., U.S. Patent No. 6,272,174. Claims 2-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kennedy I in view of Kennedy et al., U.S. Patent No. 5,937,034 (Kennedy II). Claims 17-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kennedy I in view of Ta. Applicants amend claims 1, 2, 5, 8, 9, 11, 13 and 17to further clarify the nature of their invention, and respectfully traverse these rejections.

In independent claims 1, 2, 5, 8 and 9, Applicants disclose a method and apparatus for performing a test of an information notification function of a switching apparatus with a predetermined information notification service specification, the method including the steps of a) performing an information notification service function between a testing apparatus which emulates a plurality of types of information reception terminals for different information

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notification service specifications based on <u>both externally provided software and internal</u> <u>software</u>.

Kennedy I discloses a multi-ported caller-ID test unit for use in a central office of a public switched telephone network (see, e.g., abstract, column 5, lines 58 – 64 and column 10, line 54 o of Kennedy I). Kennedy II discloses a method for testing the operation of a caller identification, caller-waiting (CIDCW) class of service on a communication line by augmenting control software in a central office-installed ringback device (see, e.g, abstract, column 1 lines 10 – 15 of Kennedy II). Unlike Applicants claimed invention, however, neither of Kennedy I and Kennedy II, either alone or in combination, suggest or otherwise disclose Applicants' claimed method and apparatus that emulates a plurality of types of information reception terminals for <u>different</u> <u>information notification service specifications</u>. Rather, like Applicants' admitted prior art, Kennedy I and Kennedy II suggest a test system directed specifically to a switching system on which the test system is installed (see, e.g., page 1, line 32 to page 2, line 2 of Applicants' specification). Moreover, neither of Kennedy I and Kennedy II, either alone or in combination, suggest or otherwise disclose that an apparatus for testing of a plurality of types of information reception terminals for different information notification service specifications based on <u>both</u> <u>externally provided software and internal software</u> provided in the apparatus. Accordingly, Applicants respectfully submit that independent claims 1, 2, 5, 8 and 9 are neither anticipated by either of these references or made obvious by their combination, and are therefore allowable. As claims 3, 4, 6, 7 and 10 each depend from one of allowable claims 2, 5 and 9, Applicants further submit that claims 3, 4, 6, 7 and 10 are each allowable for at least this reason.

In independent claims 11, 13 and 17, Applicants disclose an FSK signal demodulator and demodulation method, the method comprising: a) a zero crossing point calculation step <u>in which</u> <u>said zero crossing point is calculated based on two successive samples of said FSK signal using a</u> <u>linear approximation</u>, b) a zero crossing point interval calculation step, c) a mark/space transition

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point calculation step, d) a bit point calculation step which decides a bit point based on a mark/space transition point calculated by said mark/space transition point calculation step, and e) a bit decision step which decides a bit value based on said bit point calculated by said bit point calculation step.

Ta discloses a non-coherent frequency shift keying (FSK) detection scheme applied to capturing caller ID information in a low power mode (see, e.g., abstract of Ta). According to the scheme of Ta, a high sampling frequency ("preferably 30 – 50 times higher than the frequency shift keying symbol rate") so that zero crossing point may be estimated at the signal sign transition point among the measured samples (see, e.g., column 3, lines 5 – 15 and column 5, lines 24 – 27 of Ta). By means of the claimed linear approximation method employed by Applicants' invention, a much lower sampling rate can be employed without experiencing a significant deterioration in accuracy (for example, 8 kHz as opposed to 38.4 kHz as recommended in Ta).

Applicants' claimed zero point calculation step functions as follows (se, e.g., page 27, line 29, to page 29, line 25 of Applicants' specification). First, a zero crossing point is calculated based on two successive samples of the FSK signal, using a linear approximation. Next, the zero crossing point interval is calculated, and a transition point of a mark/space of the FSK signal is detected. Then, the mark/space of the FSK is determined such a that a bit point calculation unit determines a bit point value during an interval excluding a predetermined interval between a predetermined point before the mark/space transition point and another predetermined point after the mark/space transition point. As a result, an accurate reception and analysis of the FSK signal may be performed.

Applicants respectfully submit that Applicants' claimed zero crossing point calculation step is neither disclosed nor suggested by Ta, Kennedy I and Kennedy II, either alone or in combination. As a result, Applicants submit that independent claims 11, 13 and 17 are allowable
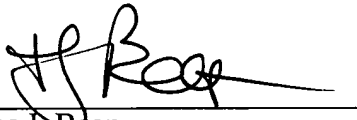
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over the cited art. As claims 12, 14 – 16, 18 and 10 each depend from one of allowable claims 11, 13 and 17, Applicants further submit that claims 12, 14 – 16, 18 and 10 are allowable for at least this reason.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 – 19, consisting of independent claims 1, 2, 5, 8, 9 , 11, 13 and 17, and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

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